

# DRY LAKE Wind Power Project



## Project Overview

The Dry Lake Wind Power Project, located in Navajo County, Arizona, is the state's first commercial-scale wind farm. The project is situated on a combination of private, state and Bureau of Land Management (BLM) public lands.

The 30 turbines at this wind power project generate 63 megawatts (MW) of clean, renewable energy and contribute jobs and tax revenue to the local community. Typically, a 63-MW wind power project can generate power for more than 15,000 average homes, according to the American Wind Energy Association's calculation. The power from Dry Lake benefits customers of the Salt River Project in the Phoenix metropolitan area.

## Project Details and Benefits

**Project Location:** Between Holbrook and Heber along SR-377

**Landowners:** Rocking Chair Ranch (private) = 11 turbines, BLM = 10 turbines, Arizona State Land Department = 9 turbines

**Approximate Acreage:** 6,000 – The footprint of the turbines covers less than two percent of the project's total acreage.

**CO<sub>2</sub> Emissions Offset:** The project is expected to annually offset approximately 170 million pounds of carbon dioxide, which is the estimated equivalent of removing almost 15,000 cars from the road each year.

**Property Tax Impact:** The project will generate thousands of dollars in property tax revenue for Navajo County

**Electricity Output:** 63 megawatts, enough electricity to meet the annual needs of 15,000 average Arizona homes.

## Project Developer and Owner: Iberdrola Renewables

With over 10,000 MW of renewable energy in operation globally, and more than 3,000 MW of that wind power located in the U.S., Iberdrola Renewables is the world's leading provider of wind power. The company is a proven economic engine, directly and indirectly creating 15,000 jobs worldwide in 2008. Iberdrola Renewables Inc. is an American company, incorporated in the U.S. and headquartered in Portland, Oregon, with offices and wind farms in 20 states. Iberdrola Renewables employs more than 800 people in the U.S. and spent more than \$2 billion on wind projects in 2008 alone. Iberdrola Renewables recently announced that it intends to invest an additional \$6 billion in renewable energy facilities in the United States over the next four years. Learn more at [www.iberdrolarenewables.us](http://www.iberdrolarenewables.us)

## Customer: Salt River Project

Salt River Project (SRP) has signed an agreement to purchase 100 percent of the power generated by the Dry Lake Wind Power Project. SRP is the third-largest public power utility in the nation, serving more than 930,000 electric customers in the greater Phoenix metropolitan area. In 2009, six percent of the energy generated for SRP customers came from renewable and sustainable sources.



## Technology

**Wind Turbine Type:** Suzlon S88

**Rated Output:** 2.1 MW

**Turbine Height:** 396 feet (120 meters) – taller than the length of a football field!

**Nacelle Weight:** Approximately 79 tons (158,000 lbs.)

**Tower Facts:** Four-section, tubular steel

**Tower Height:** 257 feet (78 meters)

**Tower Weight:** 204 tons (408,390 lbs.)

## Blade Facts:

**Swept Area:** 65,466 sq. feet (6,082 sq. meters)

**Blade Length:** 142 feet (43.25 meters)

**Rotor Diameter:** 289 feet (88 meters)

**Revolutions per Minute:**

One revolution every three seconds



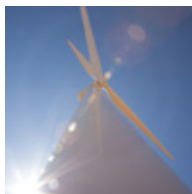
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## Technology (continued)

**Foundations:** Each individual wind turbine foundation consists of an octagonal spread footing of 58 feet, eight feet deep. Concrete volume is 386 cubic yards per turbine or 11,580 total cubic yards – that's 1,158 truckloads.



## Wind Energy

As of September 2009, U.S. wind capacity reached more than 29,000 megawatts (MW), achieving in a few years what had previously taken two decades – the installation of more than 10,000 MW of wind power capacity in the United States. This 29,440 MW of wind energy provides enough energy to serve close to 8.5 million American homes with a clean, inexhaustible, homegrown source of energy. A U.S. Department of Energy study released in 2008 found that wind could provide 20 percent of U.S. electricity by 2030. At that level, wind power would support 500,000 jobs and reduce greenhouse gas emissions as much as taking 140 million vehicles off the road. Today, Denmark, Spain and Portugal meet between 12 to 20 percent of their electricity needs from wind energy. By contrast, wind power supplies about two percent of America's current electricity needs. America's wind resource is vast and could contribute toward a cleaner and more sustainable energy mix.



## Job Creation

**Ongoing O&M Jobs:** 5-10  
**Construction Jobs:** peak of 200  
**Construction Labor Hours:** 103,422

## Job Creation (continued)

### Roads and Foundations:

Contractor: Blattner Energy  
Subcontractors: Western Grade, Dynamic Rock Solutions, Great Western Erectors, Brundage Bone, Catalyst Paper, Westwood Professional Services, Western Technologies  
Suppliers: Brimhall Sand & Gravel, Quality Redi-Mix, Empire Cat

### Tower and Turbine Installation:

Contractor: Blattner Energy  
Subcontractors: ELM Electric, Sioux Falls Tower  
Suppliers: Buckner Companies, Mardian Equipment, Bigge Crane, Coast Crane

### Electrical Collection and Substation:

Contractor: PAR Electric Constructors, Inc.  
Subcontractors: RealTime Engineers, Dashiell Corp., HL Chapman, ELM Electric, Great Plains Fiber, Manuel Brothers, Inc., WESCO

### Turbine Delivery and Commissioning:

Contractor: Suzlon Wind Energy Corp.  
Subcontractors: Badger Transport, Inc.

### Operations and Maintenance Building:

Contractor: Blattner Energy  
Subcontractors: E-7 Enterprises, Liberty Fence, Western Grade, Quality Redi-Mix  
Security: Corder Community Services

### Other:

Bradco, Knight & Carver, United Rentals, Waste Management, Williams Scotsman, WindFinders



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